

In the Claims:

1-118. Canceled.

119. (Currently amended) An isolated nucleic acid encoding a polypeptide having at least 80% nucleic acid sequence identity to:

(a) ~~a nucleic acid sequence encoding the amino acid sequence of the~~ polypeptide shown in Figure 157 of SEQ ID NO: 229 (SEQ ID NO: 229);

(b) ~~a nucleic acid sequence encoding the amino acid sequence of the~~ polypeptide shown in Figure 157 of SEQ ID NO: 229 (SEQ ID NO: 229), lacking its associated signal peptide;

(c) ~~a nucleic acid sequence encoding the extracellular domain of the~~ polypeptide shown in Figure 157 (SEQ ID NO: 229);

(d) ~~a nucleic acid sequence encoding the extracellular domain of the~~ polypeptide shown in Figure 157 (SEQ ID NO: 229), lacking its associated signal peptide;

(e)(c) the amino acid sequence of the polypeptide encoded by the nucleic acid sequence of SEQ ID NO: 228 shown in Figure 156 (SEQ ID NO: 228);

(f)(d) the amino acid sequence of the polypeptide encoded by the full-length coding sequence of the nucleic acid sequence of SEQ ID NO: 228 shown in Figure 156 (SEQ ID NO: 228); or

(g)(e) the amino acid sequence of the polypeptide encoded by the full-length coding sequence of the cDNA deposited under ATCC accession number 203110;

wherein said polypeptide induces chondrocyte redifferentiation.

120. (Currently amended) An isolated nucleic acid of Claim 119 encoding a polypeptide having at least 85% nucleic acid sequence identity to:

(a) ~~a nucleic acid sequence encoding the amino acid sequence of the~~ polypeptide shown in Figure 157 of SEQ ID NO: 229 (SEQ ID NO: 229);

(b) ~~a nucleic acid sequence encoding the amino acid sequence of the~~ polypeptide shown in Figure 157 of SEQ ID NO: 229 (SEQ ID NO: 229), lacking its associated signal peptide;

(c) ~~a nucleic acid sequence encoding the extracellular domain of the~~ polypeptide shown in Figure 157 (SEQ ID NO: 229);

- (d) ~~a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 157 (SEQ ID NO: 229), lacking its associated signal peptide;~~
- (e)(c) the amino acid sequence of the polypeptide encoded by the nucleic acid sequence of SEQ ID NO: 228 shown in Figure 156 (SEQ ID NO: 228);
- (f)(d) the amino acid sequence of the polypeptide encoded by the full-length coding sequence of the nucleic acid sequence of SEQ ID NO: 228 shown in Figure 156 (SEQ ID NO: 228); or
- (g)(e) the amino acid sequence of the polypeptide encoded by the full-length coding sequence of the cDNA deposited under ATCC accession number 203110;
- wherein said polypeptide induces chondrocyte redifferentiation.

121. (Currently amended) An isolated nucleic acid of Claim 119 encoding a polypeptide having at least 90% ~~nucleic acid~~ sequence identity to:

- (a) ~~a nucleic acid sequence encoding the amino acid sequence of the polypeptide shown in Figure 157 of SEQ ID NO: 229 (SEQ ID NO: 229);~~
- (b) ~~a nucleic acid sequence encoding the amino acid sequence of the polypeptide shown in Figure 157 of SEQ ID NO: 229 (SEQ ID NO: 229), lacking its associated signal peptide;~~
- (c) ~~a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 157 (SEQ ID NO: 229);~~
- (d) ~~a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 157 (SEQ ID NO: 229), lacking its associated signal peptide;~~
- (e)(c) the amino acid sequence of the polypeptide encoded by the nucleic acid sequence of SEQ ID NO: 228 shown in Figure 156 (SEQ ID NO: 228);
- (f)(d) the amino acid sequence of the polypeptide encoded by the full-length coding sequence of the nucleic acid sequence of SEQ ID NO: 228 shown in Figure 156 (SEQ ID NO: 228); or
- (g)(e) the amino acid sequence of the polypeptide encoded by the full-length coding sequence of the cDNA deposited under ATCC accession number 203110;
- wherein said polypeptide induces chondrocyte redifferentiation.

122. (Currently amended) An isolated nucleic acid of Claim 119 encoding a polypeptide having at least 95% ~~nucleic acid~~ sequence identity to:

- (a) ~~a nucleic acid sequence encoding the amino acid sequence of the polypeptide shown in Figure 157 of SEQ ID NO: 229 (SEQ ID NO: 229);~~
- (b) ~~a nucleic acid sequence encoding the amino acid sequence of the polypeptide shown in Figure 157 of SEQ ID NO: 229 (SEQ ID NO: 229), lacking its associated signal peptide;~~
- (c) ~~a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 157 (SEQ ID NO: 229);~~
- (d) ~~a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 157 (SEQ ID NO: 229), lacking its associated signal peptide;~~
- (e)(c) the amino acid sequence of the polypeptide encoded by the nucleic acid sequence of SEQ ID NO: 228 shown in Figure 156 (SEQ ID NO: 228);
- (f)(d) the amino acid sequence of the polypeptide encoded by the full-length coding sequence of the nucleic acid sequence of SEQ ID NO: 228 shown in Figure 156 (SEQ ID NO: 228); or
- (g)(e) the amino acid sequence of the polypeptide encoded by the full-length coding sequence of the cDNA deposited under ATCC accession number 203110;

wherein said polypeptide induces chondrocyte redifferentiation.

123. (Currently amended) An isolated nucleic acid of Claim 119 encoding a polypeptide having at least 99% ~~nucleic acid~~ sequence identity to:

- (a) ~~a nucleic acid sequence encoding the amino acid sequence of the polypeptide shown in Figure 157 of SEQ ID NO: 229 (SEQ ID NO: 229);~~
- (b) ~~a nucleic acid sequence encoding the amino acid sequence of the polypeptide shown in Figure 157 of SEQ ID NO: 229 (SEQ ID NO: 229), lacking its associated signal peptide;~~
- (c) ~~a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 157 (SEQ ID NO: 229);~~
- (d) ~~a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 157 (SEQ ID NO: 229), lacking its associated signal peptide;~~
- (e)(c) the amino acid sequence of the polypeptide encoded by the nucleic acid sequence of SEQ ID NO: 228 shown in Figure 156 (SEQ ID NO: 228);
- (f)(d) the amino acid sequence of the polypeptide encoded by the full-length coding sequence of the nucleic acid sequence of SEQ ID NO: 228 shown in Figure 156 (SEQ ID NO: 228); or

~~(g)(e)~~ the amino acid sequence of the polypeptide encoded by the full-length coding sequence of the cDNA deposited under ATCC accession number 203110;

wherein said polypeptide induces chondrocyte redifferentiation.

124. (Currently amended) An isolated nucleic acid comprising:

(a) a nucleic acid sequence encoding the polypeptide ~~shown in Figure 157~~ of SEQ ID NO: 229 (SEQ ID NO: 229);

(b) a nucleic acid sequence encoding the polypeptide ~~shown in Figure 157~~ of SEQ ID NO: 229 (SEQ ID NO: 229), lacking its associated signal peptide;

~~(e) a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 157 (SEQ ID NO: 229);~~

~~(d) a nucleic acid sequence encoding the extracellular domain of the polypeptide shown in Figure 157 (SEQ ID NO: 229), lacking its associated signal peptide;~~

~~(e)(c)~~ the amino acid sequence of the polypeptide encoded by the nucleic acid sequence of SEQ ID NO: 228 shown in Figure 156 (SEQ ID NO: 228);

~~(f)(d)~~ the amino acid sequence of the polypeptide encoded by the full-length coding sequence of the nucleic acid sequence of SEQ ID NO: 228 shown in Figure 156 (SEQ ID NO: 228); or

~~(g)(e)~~ the amino acid sequence of the polypeptide encoded by the full-length coding sequence of the cDNA deposited under ATCC accession number 203110.

125. (Currently amended) The isolated nucleic acid of Claim 124 comprising a nucleic acid sequence encoding the polypeptide ~~shown in Figure 157~~ of SEQ ID NO: 229 (SEQ ID NO: 229).

126. (Currently amended) The isolated nucleic acid of Claim 124 comprising a nucleic acid sequence encoding the polypeptide ~~shown in Figure 157~~ of SEQ ID NO: 229 (SEQ ID NO: 229), lacking its associated signal peptide.

127-128. Canceled.

129. (Currently amended) The isolated nucleic acid of Claim 124 comprising the nucleic acid sequence of SEQ ID NO: 228 ~~shown in Figure 156 (SEQ ID NO: 228)~~.
130. (Currently amended) The isolated nucleic acid of Claim 124 comprising the full-length coding sequence of the nucleic acid sequence of SEQ ID NO: 228 ~~shown in Figure 156 (SEQ ID NO: 228)~~.
131. (Previously presented) The isolated nucleic acid of Claim 124 comprising the full-length coding sequence of the cDNA deposited under ATCC accession number 203110.
- 132-134. (Canceled)
135. (Currently amended) A vector comprising the nucleic acid of Claim 119 or 124.
136. (Previously presented) The vector of Claim 135, wherein said nucleic acid is operably linked to control sequences recognized by a host cell transformed with the vector.
137. (Previously presented) A host cell comprising the vector of Claim 135.
138. (Previously presented) The host cell of Claim 137, wherein said cell is a CHO cell, an *E. coli* or a yeast cell.
139. (New) An isolated nucleic acid molecule consisting of a fragment of the nucleic acid sequence of SEQ ID NO: 228 or a complement thereof that is at least 30 nucleotide in length, that specifically hybridizes under stringent conditions to:
- (a) the nucleic acid sequence of SEQ ID NO: 228 or a complement thereof;
 - (b) the full-length coding sequence of the cDNA deposited under ATCC accession number 203110, or a complement thereof;
- wherein, said stringent conditions use 50% formamide, 5X SSC, 50 mM sodium phosphate (pH 6.8), 0.1% sodium pyrophosphate, 5X Denhardt's solution, sonicated

salmon sperm DNA (50 µg/ml), 0.1% SDS, and 10% dextran sulfate at 42°C, and washes at 42°C in 0.2X SSC, at 55°C in 50% formamide followed by a high-stringency wash at 55°C in 0.1X SSC, EDTA.

140. (New) The isolated nucleic acid molecule of Claim 139 that is at least 50 nucleotides or above in length.
141. (New) The isolated nucleic acid molecule of Claim 139 that is at least 60 nucleotides or above in length.
142. (New) The isolated nucleic acid molecule of Claim 139 that is at least 70 nucleotides or above in length.
143. (New) The isolated nucleic acid molecule of Claim 139 that is at least 80 nucleotides or above in length.
144. (New) The isolated nucleic acid molecule of Claim 139 that is at least 90 nucleotides or above in length.
145. (New) The isolated nucleic acid molecule of Claim 139 that is at least 100 nucleotides or above in length.